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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,023	06/24/2003	Marc Weydert	DN2002105	2594

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THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
1144 EAST MARKET STREET
AKRON, OH 44316-0001

EXAMINER

HUANG, MEI QI

ART UNIT PAPER NUMBER

1713

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,023

Applicant(s)

WEYDERT ET AL.

Examiner

Mei Q. Huang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed on March 24, 2005. Claims 13 and 15 are cancelled; claims 1-12, 14 and 16 have been amended. Claims 1-12, 14 and 16 are now pending.
2. The Response of March 24, 2005 has been fully considered with the following effect:
 - (i) the objection to the claim⁷ has been obviated by appropriate claim amendment;
 - (ii) the prior art rejection of claims 1-16 based on Corvasce et al. (U.S Patent 5,672,639) in view of Kim et al. (KR2003037142) under 35 U.S.C. 103(a) as being obvious has been obviated by the amendment rewriting claim 1; and
 - (iii) new rejection is made for claims 1-12, 14 and 16 as detail below.

Response to Arguments

3. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corvasce et al. (U.S Patent 5,672,639) in view of Huynh-Tran et al. (US 2003/0152758).

The prior art to Corvasce et al. is adequately set forth in the previous Office Action dated January 10, 2005 and is incorporated herein by reference.

The difference between the prior art and the present invention is the using of an adduct of maleic anhydride and polybutadiene in the rubber composition formulations. Corvasce et al. do not disclose that an adduct of maleic anhydride and polybutadiene can be used in making the rubber composition.

The prior art to Huynh-Tran et al. provides an adhesion promoter comprising maleinized polybutadiene to synergistically improve adhesion of the rubber (page 2, [0022 and [0023]). An adhesion testing of the polyester tire cords to rubber can be seen on page 6, paragraph [0056], wherein rubber components are natural rubber, styrene-butadiene rubber, and polybutadiene rubber, carbon black, plasticizer and other additives are included and maleinized polybutadiene resin is compounded with the standard rubber at 3, 5, and 10 weight percent depending on the desirable test rubber.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the adduct of maleic anhydride and polybutadiene, as taught by Huynh-Tran et al., in Corvasce et als' rubber composition formulation because Huynh-Tran et al. have successfully exemplified incorporating a maleinized polybutadiene in a similar rubber composition with increased adhesion.

As to claims 2-3, Huynh-Tran et al. use a maleinized polybutadiene with a M_n of 5100 (page 6, [0050]). Huynh-Tran et als' disclosure on page 6, [0050] and [0051] renders obvious the characteristic of the maleinized polybutadiene as instantly claimed.

As to claim 6, maleinized polybutadiene is used by Huynh-Tran et al. in amounts of 3, 5 or 10 wt% in the rubber composition (page 6, [0056]).

In regard to claims 7-12, 14 and 16, the rejection made for claims 7-12, 14 and 16 described in the previous Office Action dated January 10, 2005 maintains.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mei Q. Huang whose telephone number is (571) 272-3549. The examiner can normally be reached on 8am - 4pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mei Q. Huang
Examiner

June 25, 2005


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700